

WILLIAM HERSCHEL AND HIS WORK

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William Herschel and his work by James Sime

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JAMES SIME

**WILLIAM HERSCHEL
AND HIS WORK**

THE WORLD'S EPOCH-MAKERS

William Herschel

and His Work

By

James Sime, M.A., F.R.S.E.

"The life of Herschel had the rare advantage of forming an epoch in an extensive branch of astronomy."

Arago

Edinburgh. T. & T. Clark

1900

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PREFACE

To present to the public the life and work of a man who powerfully influenced the progress of astronomy a century ago, and stamped on his own age as well as ours a loftier view of Creation and its Author than was ever before entertained, may be best done by allowing him and his contemporaries to tell their own story, and to relate their own impressions. We all prefer to hear them speaking, to see them playing their parts in life, and to watch the drama of surprise, wonder, and criticism unfolding itself in their written or printed pages. If I have succeeded in my endeavour to tell the story on these lines, I shall have attained the end which I had in view when I undertook this work.

William Herschel was not a mathematician of the order of Newton, Laplace, or even of his own son. He made no pretence to that high honour. His fields of research were much simpler, though not less laborious, and the harvests he reaped were enjoyed by mankind without a strain on the understanding which very few in any age are capable of. A popular exposition of his career and his discoveries in the light of more

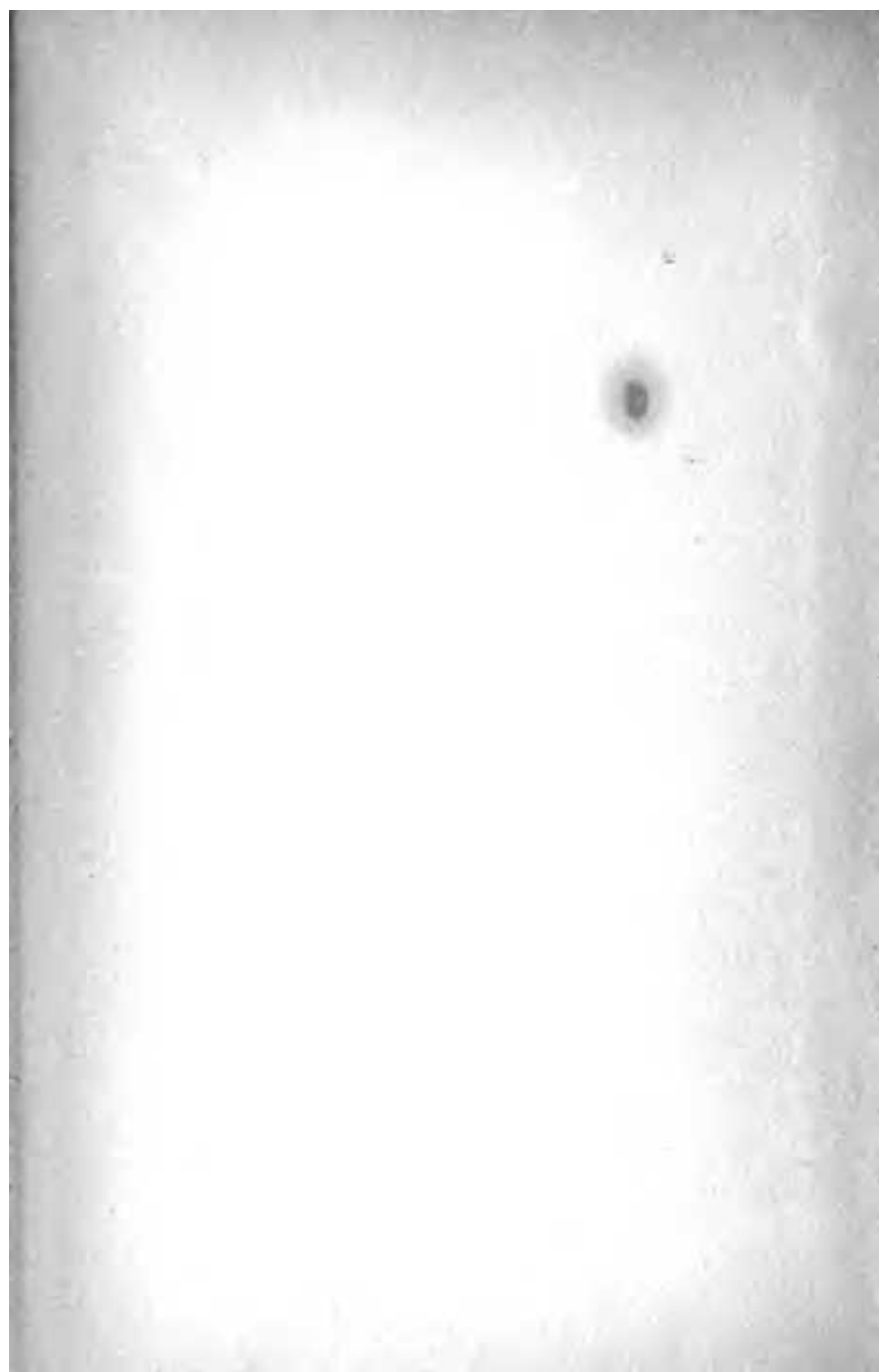
recent triumphs may be as easy to follow now, and as welcome as it was in his own day.

What Sir William and Lady Huggins recently said of their own labours with the spectroscope, Herschel could have said a century before of the difficulties his sister and he encountered and overcame with the telescope: "It is scarcely possible at the present day, when all these points are as familiar as household words, for any astronomer to realise the large amount of time and labour which had to be devoted to the construction of the first star spectroscope."¹

¹ *Atlas*, 1899, p. 8.

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WILLIAM HERSCHEL AND HIS WORK

CHAPTER I

THE FAMILY

CICERO in his exquisite little book, written two thousand years ago in the infancy of astronomy, and called *Scipio's Dream*, delighted the Roman world of his day with stories of the stars, which were a mixture of romance and truth. He formed some idea of their movements from a rough approach that had been made even then to a globe of the heavens, and he filled his readers with awe at the music which was believed to accompany their passage through space. The music of the spheres has passed into our language and our thoughts at the present day. But it would have been the greatest wonder of all could Cicero have foreseen that, more than nineteen centuries after his day, the true music of the spheres and the truest means of hearing it sung would be discovered by the genius, the almost unaided genius, of "a philosopher without the rules," a musician in the town of Bath, then a haunt of savages or wild beasts. He was organist in the Octagon Chapel of that city, the director of